Remarks

Introduction

Receipt is acknowledged of the Office Action dated August 29, 2001. In the Action, the Examiner has maintained the Restriction Requirement and has withdrawn claims 22-36 and 59-65 from consideration. Of the elected claims, the Examiner has solely rejected claims 37-58 under 35 U.S.C. § 112, first paragraph as allegedly non-enabled.

Information Disclosure Statement

In paragraph 2 of the Office Action, the Examiner has indicated that the IDS filed April 30, 1999 has not been considered since it references documents cited in the grandparent application (Serial No. 08/235,395), which is unavailable. Applicants will submit the listed references in a Supplemental Reply. Nonetheless, Applicants respectfully submit that late submission should not preclude consideration of the listed references.

Claim Rejections under 35 U.S.C. § 112, first paragraph

On pages 3-8 of the Office Action, the Examiner has rejected claims 37-58 under 35 U.S.C. § 112, first paragraph as allegedly not enabled. Initially, the Examiner asserts, *inter alia*, that "there are five components [of the claimed bifunctional fusion protein or conjugate thereof] which are drawn to large classes of possible components, and therefore are very broadly drawn." Office Action page 4.

The Examiner alleges that the claims are overly broad in view of the specification. However, Applicants point out from the onset that the Examiner's comments are not sufficient to establish a *prima facie* case of enablement since a rejection for breadth, by itself, is not proper. See United States Steel Corp. v. Phillips Petroleum Co., 865 F.2d 1247, 1251 (Fed. Cir. 1989) ("[D]efendant's argument is one of 'overbreadth,' but that one world alone has long ago been discredited as a basis for determining sufficiency of a specification."). See also In re Marzocchi, 439 F.2d 220, 223 (CCPA 1971) ("The first paragraph of §112 requires nothing more than objective enablement. How much a teaching is set forth, either by use of illustrative examples or by broad terminology, is of no importance.").

Rather, it is the burden of the Examiner to establish why the instant bifunctional fusion proteins would not work to treat tumors, which is required to rebut the presumptively enabled bifunctional fusion proteins and methods of treating tumors. See M.P.E.P. § 2164.04 (A specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. Assuming that sufficient reason for such doubt exists, a rejection for failure to teach how to make and/or use will be proper on that basis. In re Marzocchi, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). As stated by the court, "it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure." 439 F.2d at 224, 169 USPQ at 370.))

In this connection, the Examiner states that "[t]here is not evidence or guidance that the instant method would function with a prodrug, and thus it is not clear that the instant method would inhibit or kill tumors." Moreover, the Examiner states that "the specification provides no more objective evidence that any other bifunctional fusion glycoprotein would function as the instantly taught single embodiment . . . ".

However, Applicants point out that "[t]he specification need not contain an example if the invention is otherwise disclosed in such manner that one skilled in the art will be able to practice it without an undue amount of experimentation. In re Borkowski, 422 F.2d 904, 908, 164 USPQ 642, 645 (CCPA 1970)." In addition, "[t]he presence of only one working example should never be the sole reason for rejecting claims as being broader than the enabling disclosure, even though it is a factor to be considered along with all the other factors. To make a valid rejection, one must evaluate all the facts and evidence and state why one would not expect to be able to extrapolate that one example across the entire scope of the claims." See M.P.E.P. § 2164.02.

Here, the Examiner has still not provided any evidence or reasoning that the claimed bifunctional fusion protein or conjugate thereof comprising a modified carbohydrate compliment would not work as specifically described in the specification. The Examiner only cites a variety of articles for the proposition that "the art teaches that the instantly claimed technique does not always work, and that galactosylated targeting molecules do not always localize to tumors." See Office Action, pages 6 and 7. However, notwithstanding the comments made by the Examiner, or the assertions set forth in the cited references, the Examiner has not demonstrated that the instantly claimed bifunctional fusion glycoproteins do not possess those characteristics which are beneficial for treating tumors. Thus, the Examiner has not met the burden of rebutting the presumptively enabled compounds or their use in treating tumors.

Contrary to the Examiner's comments, Applicants submit that the instant bifunctional fusion protein or conjugate is, in fact, sufficiently enabled. For example, prior art systems have been troubled with targeting effective amounts of the conjugates to tumor sites, and clearing non-specific sites from the circulation. In response, the specification specifically states that the modified carbohydrate compliment of the bifunctional fusion protein or conjugate thereof enhances both the relative concentration of the FUP or AEC at the tumor site and increases clearance of these proteins from non-specific sites and from the general circulation. See Specification at page 7, lines 26-30.

Therefore, the specification adequately sets forth that the instant methods can be practiced without undue experimentation since the specification teaches that the structure of the instant bifunctional fusion protein or conjugate thereof overcomes problems associated with those systems of the prior art. See M.P.E.P. § 2164.01 (citing In re Wands, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988)). See also United States v. Telectronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988) ("The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation."). Applicants respectfully submit that the Examiner has not met the burden of rebutting the presumptively enabled compounds, or their use in treating tumors, since the Examiner has still not provided any evidence that the claimed bifunctional fusion protein or conjugate

thereof comprising a modified carbohydrate compliment would not work in treating tumors, as specifically described in the specification.

Therefore, since the rejection fails to set forth a *prima facie* case of non-enablement, and since the specification fully enables the instant bifunctional fusion glycoproteins and their use in treating tumors, Applicants respectfully request reconsideration and withdrawal of the rejection under § 112, first paragraph.

Conclusion

Based on the foregoing, Applicants assert that the pending claims are allowable and respectfully request early notification of the same. The Examiner is invited to contact the undersigned for any reason related to the furtherance of this case at the telephone number set forth below.

Respectfully submitted,

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